

March 2011

Attorney Docket No.: 7913ZY

Serial No.: 08/471,890

Proposed Examiner's Amendment

IN THE SPECIFICATION:

Please replace the first paragraph on page 1, starting at line 1, with the following paragraph:

This is a continuation of ~~co~~pending application U.S. Patent Application Serial No. 07/580,246, filed on September 10, 1990, now U.S. Patent No. 7,494,638, which is a continuation-in-part of U.S.S.N. 575,254, filed on August 30, 1990. This is a ~~continuation-in-part of co~~pending United States U.S. Patent Application Serial Number 07/575,254 ~~575,254~~ that was filed on August 30, 1990, now abandoned.

IN THE CLAIMS:

Claim 125:

Please cancel claim 125.

Please amend claim 127 as follows:

127. (Currently Amended) A molded product comprising C₆₀ and/or C₇₀ ~~a cage moiety consisting of carbon atoms~~

Claims 128 and 129:

Please cancel claims 128 and 129.

Claim 132:

Please cancel claim 132.

Please amend claims 133-151 as follows:

133. (Currently Amended) ~~A solid carbon product~~ Purified cage molecules consisting of carbon atoms prepared by the process comprising:

- (a) vaporizing a carbon source in the presence of an inert quenching gas under conditions effective to provide a sooty carbon product comprising cage molecules consisting of carbon atoms;
- (b) depositing the sooty carbon product on a collecting substrate;
- (c) removing the sooty carbon product from the collecting substrate;
- (d) contacting the sooty carbon product with a non-polar organic solvent effective to dissolve said cage molecules to form a solvent solution, said solvent being present in an amount effective to dissolve ~~the~~ said cage molecules in said sooty carbon product; and
- (e) recovering from ~~said resulting product formed when the sooty carbon product was contacted with~~ said solvent solution ~~a solid carbon product comprising~~ purified cage molecules consisting of carbon atoms in a macroscopic amount.

134. (Currently amended) The ~~solid carbon product~~ purified cage molecules consisting of carbon atoms of claim 133 in which the carbon in step (a) is vaporized in an evacuated reactor.

135. (Currently amended) The ~~solid carbon product~~ purified cage molecules consisting of carbon atoms of claim 134 in which the carbon source of step (a) is vaporized in an evacuated bell jar.

136. (Currently amended) The ~~solid carbon product~~ purified cage molecules consisting of carbon atoms of claim 133 in which the carbon source subject to vaporization in step (a) is graphite.

137. (Currently amended) The ~~solid carbon product~~ purified cage molecules consisting of carbon atoms of claim 133 in which the carbon source subject to vaporization in step (a) is graphite rods.

138. (Currently amended) The ~~solid carbon product~~ purified cage molecules consisting of carbon atoms of claim 133 wherein the carbon source is vaporized in step (a) through heating the carbon source by means of an electrical current of sufficient intensity to produce the sooty carbon product.

139. (Currently amended) The ~~solid carbon product~~ purified cage molecules consisting of carbon atoms of claim 138 wherein the electrical current is about 100 amps.

140. (Currently amended) The ~~solid carbon product~~ purified cage molecules consisting of carbon atoms of claim 133 wherein the inert quenching gas of step (a) is a noble gas.

141. (Currently amended) The ~~solid carbon product~~ purified cage molecules consisting of carbon atoms of claim 133 wherein the carbon source is vaporized in step (a) at a pressure ranging from 50 torr to 400 torr.

142. (Currently amended) The ~~solid carbon product~~ purified cage molecules consisting of carbon atoms of claim 141 wherein the carbon is vaporized in step (a) at approximately 100 torr.

143. (Currently amended) The ~~solid carbon product~~ purified cage molecules consisting of carbon atoms of claim 133 wherein the carbon is vaporized in step (a) at a pressure ranging from about 2 to 3 atmospheres.

144. (Currently amended) The ~~solid carbon product~~ purified cage molecules consisting of carbon atoms of claim 133 wherein the collecting substrate in step (b) is a glass surface.

145. (Currently amended) The ~~solid-carbon-product~~ purified cage molecules consisting of carbon atoms of claim 140 wherein the inert gas is helium or argon.

146. (Currently amended) The ~~solid-carbon-product~~ purified cage molecules consisting of carbon atoms of claim 133 wherein the non-polar organic solvent of step (d) is carbon disulfide, benzene, carbon tetrachloride or toluene.

147. (Currently amended) The ~~solid-carbon-product~~ purified cage molecules consisting of carbon atoms of claim 146 wherein the solvent is benzene.

148. (Currently amended) The ~~solid-carbon-product~~ purified cage molecules consisting of carbon atoms of claim 146 wherein the solvent is carbon tetrachloride.

149. (Currently amended) The ~~solid-carbon-product~~ purified cage molecules consisting of carbon atoms of claim 133 wherein recovery step (e) comprises evaporating the solvent.

150. (Currently amended) A ~~solid-carbon-product~~ Purified cage molecules consisting of carbon atoms prepared by the process comprising: (a) evaporating a carbon source in the presence of an inert quenching gas under conditions effective to produce a sooty carbon product containing cage molecules consisting of carbon atoms, said cage molecules being present in said sooty carbon product in sufficient concentration to allow a macroscopic amount of said cage molecules to be separated from said sooty product; (b) collecting the sooty carbon product produced therefrom; (c) subliming ~~the carbon product comprising~~

said cage molecules from the sooty carbon product; and (d) condensing ~~the sublimed~~
~~carbon product comprising~~ said cage molecules.

151. (Currently amended) The ~~solid carbon product~~ purified cage molecules consisting of
carbon atoms of claim 150, wherein ~~the~~ said collecting ~~substrate~~ in step (b) is done on a
glass surface.

Claim 152:

~~Please cancel claim 152.~~

Please amend claims 153-163 as follows:

153. (Currently amended) The ~~solid carbon product~~ purified cage molecules consisting of
carbon atoms of claim [152] 150 wherein step (c) comprises heating ~~the~~ said sooty carbon
product comprising said cage molecules in a vacuum or inert atmosphere at effective
sublimation temperatures to extract ~~the carbon product comprising~~ said cage molecules
from said sooty carbon product.

154. (Currently amended) The ~~solid carbon product~~ purified cage molecules consisting of
carbon atoms of claim 150 in which the carbon source in step (a) is vaporized in an
evacuated reactor.

155. (Currently amended) The ~~solid carbon product~~ purified cage molecules consisting of
carbon atoms of claim 154 in which the carbon in step (a) is vaporized in an evacuated

bell jar.

156. (Currently amended) The ~~solid carbon product~~ purified cage molecules consisting of carbon atoms of claim 150 in which the carbon subject to vaporization in step (a) is graphite.

157. (Currently amended) The ~~solid carbon product~~ purified cage molecules consisting of carbon atoms of claim 150 in which the carbon subject to vaporization in step (a) is graphite rods.

158. (Currently amended) The ~~solid carbon product~~ purified cage molecules consisting of carbon atoms of claim 150, wherein the carbon source in step (a) is vaporized by passing an electric current of sufficient intensity to produce a sooty carbon product.

159. (Currently amended) The ~~solid carbon product~~ purified cage molecules consisting of carbon atoms of claim 158, wherein the electrical current is about 100 amps.

160. (Currently amended) The ~~solid carbon product~~ purified cage molecules consisting of carbon atoms of claim 150, wherein the inert quenching gas of step (a) is a noble gas.

161. (Currently amended) The ~~solid carbon product~~ purified cage molecules consisting of carbon atoms of claim 150, wherein the carbon source in step (a) is vaporized at a

pressure ranging from 50 torr to 400 torr.

162. (Currently amended) The ~~solid carbon product~~ purified cage molecules consisting of carbon atoms of claim 161, wherein the carbon source is vaporized in step (a) at approximately 100 torr.

163. (Currently amended) The ~~solid carbon product~~ purified cage molecules consisting of carbon atoms of claim 160, wherein the noble gas is helium or argon.

Please add the following new claims 164 and 165:

New claim 164:

164. (New) An industrial paint pigment comprising C₆₀ or C₇₀.

New claim 165:

165. (New) A lubricant comprising C₆₀ or C₇₀.